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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/288,478	04/08/1999	SAMIR KAPOOR	P/3341-4	7548
2352	7590	03/08/2005	EXAMINER	
OSTROLENK FABER GERB & SOFFEN 1180 AVENUE OF THE AMERICAS NEW YORK, NY 100368403			CHANG, EDITH M	
			ART UNIT	PAPER NUMBER
			2637	

DATE MAILED: 03/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/288,478

Applicant(s)

KAPOOR ET AL.

Examiner

Edith M Chang

Art Unit

2637

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 06 December 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-46 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-46 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 November 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Specification*

1. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited.

Rewrite the abstract in a 50 to 150 words paragraph.

### *Claim Objections*

2. Claims 2-5, 12-14, 25-232, 34-37, and 42 objected to because of the following informalities:

Claims 2 & 25, line 2: "feed back" is suggested changing to "feedback".

Claim 12, line 1: "further wherein" is suggested changing to "wherein".

Claim 27, line 3: "said" is suggested changing to "the".

Claim 28, lines 1-2: "the step of applying" is suggested changing to "the step of suppressing side lobes by applying".

Claim 34, line 3: "step of" is suggested changing to "step of performing"; line 7: "selection" is suggested changing to "the selecting".

Claim 36, line 2: "step of" is suggested changing to "step of performing".

Claim 37, line 3: "said" is suggested changing to "the".

Claims 3-4, 13-14, 26, 29-32, 35, and 42 are directly or indirectly dependent on objected claims 2, 12, 25, and 34.

Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 5-9, 19, 23-24, 28-32, 42 and 46 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Claims 5 and 28 are not taught in the disclosures of the drawings. Claims 5 and 28 are dependent on the claim 1 and 24 respectively. The claim 1 and 24 are taught in the embodiment of Figure 2.

In claims 1 and 24, the window stage of the second data path connects to the first stage (FFT 120 of Figure 2) of the first data path to suppress side lobes of the frequency response of the first stage as shown in Figure 2 wherein the window stage of the second data path is a frequency domain windowing. However the claims 5 and 28 recites the window stage comprises a time domain window stage as shown in Figure 1 which is not taught in the disclosure of Figure 2. In Figure 1, the window stage of the second data path connects to the CP remover (34 Figure 1), does not suppress side lobes of the frequency response of the first stage (FFT 120 Figure 1).

The inventions of the claims 1 and 24 are taught in the Figure 2 wherein the window stage is a frequency domain window, not a time domain window as recited in claims 5 and 28

Art Unit: 2637

which are dependent on the claims 1 and 24 respectively. Hence claims 5 and 28 are not taught in the specification.

Claim 23 is not taught by the disclosure of Figure 2. Wherein the window stage (220') does not have an input from an output of the frequency domain equalizer (140').

Claim 46, recites that the window function is applied to the frequency domain equalized signal. However the frequency domain equalized signal is provided by frequency domain equalizing (FEQ 140' FIG.2) the first transformed signal, wherein the first transformed signal is generated by a discrete Fourier Transform (FFT 120' FIG.2) as recited in the independent claim 24. The claim 46 is not taught in the disclosure of FIG.2 of the current specification, wherein the frequency domain equalized signal provided by Frequency Equalizer (FEQ as shown in FIG.2) in the first path is outputted to the select logic, and the window function is applied to the first transformed signal (as shown in FIG 2).

Claims 6-9 and 19 are dependent on the rejected claim 5; claims 29-32 and 42 are dependent on the rejected claim 28.

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 1-46 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1, lines 19-20 & Claim 24, line 19: "a predefined test" is undefined that the claim failing to clearly indicate the subject matter.

Claims 17 & 40, "the event" lacks antecedent basis.

Claim 24, lines 14-16: "suppressing side lobes of the frequency response of the first transformed signal in the second data path" does not understand that the first transformed signal is generated in the first data path, how does the suppressing side lobes of the frequency response of the first transformed signal in the second data path. The limitation fails clearly indicate the subject matter claimed.

Claim 35, line 2: "the frequency domain equalized signal" lacks antecedent basis.

Claims 2-16, 18-23, 25-34, 36-39, and 41-46 are directly or indirectly dependent on the rejected claims 1 and 24.

***Allowable Subject Matter***

7. Claims 1-4, 10-18, 20-22, 24-27, 33-41, and 43-45 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and rewritten to overcome the objections set forth in this Office action.

8. The following is a statement of reasons for the indication of allowable subject matter:

The prior art of record fails to teach or suggest, alone or in a combination, among other things, at least a receiver providing a demodulated output from a received discrete multi-tone modulated input signal and its method as a whole, the combination of elements and features, which includes two data paths coupled to receive the input signal; a window stage of the second data path suppressing side lobes of the frequency response from a first stage of the first data path wherein the first stage discrete Fourier Transforming the input signal to provide the frequency

Art Unit: 2637

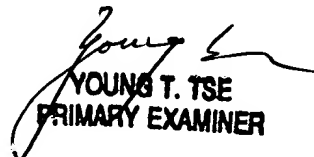
response outputted to the window stage and a frequency domain equalizer in the first data path; and a logic stage selecting an output from the first or the second data path.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Edith M Chang whose telephone number is 571-272-3041. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jayanti Patel can be reached on 571-272-2988. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Edith Chang  
March 1, 2005

  
YOUNG T. TSE  
PRIMARY EXAMINER